

AGRICULTURAL NEWS

VOL. 18—NO. 3

SEPTEMBER, 1926

This publication contains information regarding new developments of interest to agriculturists based on laboratory and field investigations by the Du Pont Company. It also contains published reports of investigations at agricultural experiment stations and other institutions as related to the Company's products and other subjects of agricultural interest.



AGRICULTURAL NEWS LETTERCONTENTS

Treated Seed Grain Good Next Year.....	80
Colored Cellulose Sponges Introduced.....	80
Best Temperature for Storing Eggs.....	81
Air-Layering Aids Propagation of Rhododendron.....	82
Production of "Orlon" Acrylic Fiber Started.....	83
New Synthetic Fiber Being Evaluated.....	85
Cranberries Increasingly Packed in Cellophane.....	86
Treat Small Grain, Flax Seed in Winter.....	87
2,4-D Affords Greater Efficiency in Rice Harvest.....	88
How To Make Your Own Christmas Decorations.....	89
New "Delsterol" D-Activated Animal Sterol Formulation.....	90
"What's New in Fishing Tackle".....	91
Research Always Goes On.....	92
Importance of Sanitation in Fly Control.....	93
Farming Develops Leadership.....	94

Published by the Extension Division
Public Relations Department
E. I. du Pont de Nemours & Company (Inc.)
Wilmington, Delaware

L. F. Livingston, Manager

William H. Lander
Editor

M. H. Bruner, Extension
Division, Du Pont Co.,
Clemson, S. C.

W. A. Dew, Extension
Division, Du Pont Co.,
San Francisco, Calif.

V. S. Peterson, Extension
Division, Du Pont Co.,
Ames, Iowa

Du Pont Agricultural Advisory Board

W. H. Tisdale,
Technical Division,
Grasselli Chemicals Department

Gilbert F. Miles,
Minquadale Laboratory,
Grasselli Chemicals Department

D. C. Boughton,
Animal Industry Division,
Grasselli Chemicals Department

H. F. Dietz,
Pest Control Research Section,
Grasselli Chemicals Department

M. F. Gribbins,
Technical Service Section,
Polychemicals Department

James Waddell,
Biological Laboratory,
Organic Chemicals Department

.....

:
: TREATED SEED GRAIN
: GOOD FOR NEXT YEAR
:

: Farmers who have treated seed grain on their hands, because they :
: were unable to plant it during a wet, late spring, need have no worries. :
: The treated seed will be good next year. :
:

: THE FARMER, of Saint Paul, Minn., in its July 1, 1950 issue, :
: quotes W. E. Brentzel, plant pathologist of North Dakota Agricultural Col- :
: lege, Fargo, as saying :
:

: "Wheat, oats, or barley treated with 'Ceresan' seed disinfectant :
: at the recommended rate of one half ounce per bushel will not be damaged :
: as a result of being held over. In the case of flax, however, there may :
: be some damage because it has had a double dose - one ounce per bushel. :
:

: "However, the damage to flax is likely to be very small. In :
: our tests we have not noticed injury from 'Ceresan' after 12 months or :
: even longer periods of storage. But before sowing the seed next spring it :
: should be tested for germination which is a good practice regardless of :
: whether or not seed has been treated." :
: :
:

.....

:
: COLORED CELLULOSE
: SPONGES INTRODUCED
:

: A new line of colored cellulose sponges has been introduced by :
: the Du Pont Company. :
:

: The new product was put on display formally for the first time :
: at the National Housewares and Home Appliance Show in Atlantic City, July :
: 10 to 14. It has been test-marketed successfully in selected areas for :
: the past few months. :
:

: Designed specially for the bath and general household use, the :
: new sponges are highly durable but softer of texture than Du Pont's pres- :
: ent cellulose sponge. For convenience, the individual sponges are rec- :
: tangular in shape. The material absorbs up to 20 times its weight in water :
: and is not injured by boiling water. :
:

: The new sponges come in four colors: yellow, coral, green, and :
: blue. They were selected to complement the color schemes of bathrooms and :
: kitchens. They are being marketed primarily through grocery, department, :
: hardware, variety, and drug stores. :
: :
:

FIFTY DEGREES FAHRENHEIT FOUND BEST TEMPERATURE
FOR STORAGE OF HATCHING EGGS IN BELTSVILLE TESTS

The best storage temperature for hatching eggs is 50 degrees Fahrenheit, according to recent tests conducted at Beltsville, Maryland, Research Center by the United States Department of Agriculture.

Temperature of 30 and 40 degrees were found to be definitely harmful and those of 60 and 70 degrees tended to reduce hatchability. However, when the storage temperature was held at 50 degrees, the hatchability of some eggs was preserved for as long as 42 days. No chicks were hatched from eggs stored at 55 degrees for that long a period, but 55 degrees was satisfactory up to 21 days.

The Beltsville studies were undertaken by the Bureau of Animal Industry to help provide practical information for the hatching industry. Today only about 70 out of every 100 eggs placed in commercial incubators actually hatch. Part of this loss is due to infertility of the eggs, but it is estimated that commercial hatcheries discard at least 300 million eggs every year because the embryos have died at some stage of incubation. This annual waste amounts to enough eggs to load 1,388 freight cars.

Many factors influencing the hatchability of eggs have been studied throughout the country for a number of years. Some of these have been isolated as inherited characteristics, poultry rations and management, and various environmental influences to which the egg is subjected both before and during incubation. Bureau of Animal Industry scientists believe, however, that the one environmental factor which probably contributes most toward poor hatches is that of improper temperatures during the holding periods before incubation.

POLYTHENE PROVIDES MOISTUREPROOF COVER TO AID
IN PROPAGATION OF LARGE-LEAVED RHODODENDRON

A new technique to increase successful rootings of the large-leaved rhododendrons by using the new plastic, polythene, has been tried successfully.

John L. Creech, plant specialist of the United States Department of Agriculture, has utilized its moistureproof qualities in putting out cuttings of the large leaved rhododendrons. This evergreen ornamental is popular in the mild and semi-rigorous parts of the United States, but it is very hard to propagate.

Polythene is used to provide proper conditions for air-layering, a means of getting roots started on stem cuttings before the cuttings have actually been cut off the parent plant.

Moistureproof Plastic Makes Air-Layering Feasible

Air-layering, developed by plant propagators long ago from the more or less natural method of soil or mound layering, has long been a greenhouse technique for conservatory plants, usually tropicals. Rhododendrons have been propagated commercially by grafting in the greenhouse, but never before by air-layering. Now the polythene has made field propagation feasible and opened it up for the amateur in his yard.

In air-layering as practiced in the greenhouse, the stems are wrapped in tied-on balls of moss that must be watered daily. Without a moistureproof cover, says Mr. Creech, it would be impractical to keep these handfuls of moss damp outdoors.

At the Plant Introduction Garden, Glenn Dale, Md., where the experimental work was done, the air "layers" were made in early May, out in the open. Mr. Creech used the variety called America, one of the hardest of all rhododendrons to root. Wood of the last season was slit and a small quantity of indolebutyric acid (one of the hormone-like plant growth substances) was put in the cut. The moist sphagnum moss was squeezed as dry as possible, wrapped around the treated part and then wrapped in turn with a sheet of the plastic made tight to the stem at top and bottom with rubber grafting bands.

In August, when the stems had a ball of roots and were ready for cutting and setting in pots, the moss was still moist although no water had been added after wrapping.

The new procedure, which promises a considerable reduction in both labor and expense in propagation of this one woody plant, is likely to be found a great gain in rooting many others of this kind, according to Mr. Creech.

PRODUCTION OF "ORLON" ACRYLIC FIBER CONTINUOUS
FILAMENT YARN BEGINS AT CAMDEN, SOUTH CAROLINA

"Orlon" acrylic fiber in the form of continuous filament yarn is now in production at the Camden, South Carolina, plant of the Du Pont Company. "Orlon" is Du Pont's newest synthetic textile fiber.

Construction is now underway on a separate unit at Camden to manufacture "Orlon" in staple form. In the meantime, research on the staple process is being increased from a laboratory-scale operation to a pilot-plant operation at Waynesboro, Virginia.

The origin of "Orlon" goes back to the discovery in the laboratories of the Du Pont Company that polyacrylonitrile was soluble in certain organic solvents, producing concentrated solutions that could be spun on conventional yarn-spinning systems.

When the plant at Camden went into operation, Du Pont had invested more than eight years of intensive research and development work and an estimated \$22,000,000 in "Orlon". The first unit has a rated capacity of approximately 6½ million pounds of yarn a year.

Fiber Resists Outdoor Exposure Excellently

The fiber has outstanding resistance to sunlight, is quick-drying, easy to launder, recovers rapidly from wrinkling, and holds its shape when properly and adequately heat-set in finished textile articles. It is the most outstanding fiber known in its resistance to outdoor exposure - natural or man-made.

Initial production was of relatively heavy yarns for industrial uses requiring resistance to acids or exposure such as filter fabrics, mine belting, chemical and marine cordage, and electrical insulation.

Manufacturers have made excellent progress in developing fabrics for apparel and domestic uses. Among these, which may be expected to appear on the market in gradually increasing quantities, are awnings, garden furniture, beach chairs and umbrellas, yacht sails, raincoats, marquisette curtains, and a variety of men's and women's garments in satin, taffeta, twill, and Louisine weaves. Wool-like fabrics of "Orlon" will not appear on the market in any quantity until completion of the staple unit in Camden in 1952.

"Orlon" Previously Known as "Fiber A"

The Camden plant is named for Benjamin M. May, retired General Manager of the Du Pont Company's Rayon Department. Mr. May was with the company from 1902 until 1949 and was an official of the organization which launched the company's textile fibers operations at Buffalo, New York, in 1920.

Purchase of the site for the May Plant, a tract of approximately 800 acres, was announced on April 9, 1948. The trade-mark "Orlon" acrylic fiber was announced on August 23, 1948, for the product which had been known as "Fiber A."

The main building measures approximately 300 by 600 feet. Construction is of structural steel and jumbo brick exterior walls. Interior walls are largely tile and other modern lining materials.

On a statistical basis, the roof covers an area of 200,000 square feet, or 4.62 acres. The plant floor area, including the five-story chemical building, is 5.5 acres. Eighteen hundred tons of structural steel, the equivalent of approximately 1,200,000 ordinary brick and 200,000 tile, and 500 carloads of locally purchased sand and stone went into the construction.

How New Fiber Is Manufactured

Raw materials are received principally by rail and are stored in a tank farm to the south of the manufacturing areas. From there, the materials are piped into the chemical building for processing through a complication of intricate steps and operations.

In its initial liquid form, the acrylonitrile is known as a monomer, which is transposed into a solid polymeric form. Then it is dissolved into a solution for spinning and through the tiny holes of the spinneret, it appears again as a solid in the form of filaments.

The filaments are twisted together to form yarn and at the same time they are drawn mechanically to orient the molecular structure of every tiny fiber. The yarn is then washed, dried, placed on shipping bobbins, inspected, packaged, and is ready for shipment to knitters and weavers throughout the textile industry. Du Pont produces no fabrics or finished textile products.

Latest Safety Equipment Installed

The Du Pont Company has built into the May Plant the latest in safety equipment, designed against all types of process and industrial hazards to insure the maximum safe working conditions for employees.

Approximately 500 persons are required to operate the first unit of the May Plant. About 1,000 people will be employed in the new staple plant. It will be approximately 250 feet by 1,000 feet of single and multiple-story construction. In design, it will follow the pattern of the yarn plant.

COMMERCIAL POSSIBILITIES OF NEW SYNTHETIC FIBER
IN VARIETY OF CONSUMER PRODUCTS NOW BEING TESTED

The Du Pont Company is evaluating a new synthetic textile fiber on an experimental scale. Limited quantities of window curtains, blouses, sport shirts, sewing thread, and summer suitings made from this new product, known tentatively as Fiber V, are currently being tested to determine the commercial possibilities of the new fiber in consumer products. In the industrial field, evaluation is also being made in fire hose, V-belts, and other applications.

Technically, the material is a condensation polymer obtained from ethylene glycol and terephthalic acid. It is not chemically related to nylon. Quantities of both continuous filament yarn and staple required for development work are being made in an experimental operation at the Seaford, Del., plant of the Nylon Division.

Fiber V Has High Tensile Strength

Like nylon and "Orlon" acrylic fiber, Fiber V appears to offer many properties which the company said are potentially outstanding contributions to the textile industry. It has high tensile strength and high resistance to stretching - both wet and dry. It has good resistance to degradation by chemical bleaches and to abrasion. Most of the fiber's properties are equally good under wet or dry conditions. Fabrics made from Fiber V have excellent resilience and resistance to wrinkling, launder easily, dry quickly, and can be heat set.

A wide range of filament deniers is possible. The fiber has good electrical insulation properties and is not weakened by fungus, mold or mildew.

The fiber first was developed in England where it bears the trademark "Terylene." United States rights to manufacture the patented fiber were acquired by the Du Pont Company in 1946. Extensive development work by Du Pont, since this acquisition, has been on a purely experimental basis and no decision has yet been made to produce the fiber commercially.

.....
: The total U. S. consumption of textile fibers in 1948 was 6; bil- :
: lion pounds; of this Du Pont produced less than 4 per cent. :
:
:

SEVENTY-FIVE PER CENT OF ALL FRESH CRANBERRIES NOW
SHIPPED IN TRANSPARENT CELLOPHANE BAGS OR CARTONS

The quarter barrel wooden box is rapidly disappearing as the standard container for fresh cranberries.

In its place, growers and shippers are more and more using consumer-sized cellophane bags, which permit the purchaser to see the red cranberries inside.

Although the use of cellophane for this purpose only began after the war, the Farm Credit Administration of the United States Department of Agriculture, in a report called "Prepackaging Cranberries Cooperatively," estimates that 75% of the 1949-50 cranberries which were sold fresh, were prepackaged in cellophane bags or window cartons. The trend was a veritable revolution in marketing practices.

Transparent Bags Popular With Consumers

According to the report, representative packers reported that it costs very little more to package cranberries in consumer-sized cellophane bags than in the quarter barrel boxes. Actually, the savings from eliminating the old-fashioned wooden box nearly offsets the new prepackaging costs, it said. Cranberry cooperatives had to make rapid adjustments in the change-over from quarter-barrel boxes to the one-pound transparent bags or window cartons consumers are demanding these days.

These one-pound packages are either bought ready-made, and filled at the plant, or are both made and filled at the plant by a special machine that turns out a pillow-shaped bag. The report said that ready-made bags have generally been more satisfactory for smaller volume operations.

Some buyers also objected to the pillow-shaped bags, saying they are too loosely packed and that the printed matter did not appear in the same place on each bag. However, where larger volume is handled, the packers reported that it usually was better to use the machine that makes the bags right at the plant.

The report concluded by forecasting that an even increasingly large proportion of the cranberries sold fresh undoubtedly will be packed in consumer-sized units.

CELLOPHANE PROVIDES MANY JOBS

Only about 60% of the cellophane film which Du Pont makes is used in the form in which it is shipped out. The other 40% is "converted" into various articles like bags, tape, envelopes, tubes and so on. There are 300 firms in this field. It is estimated that the total number of jobs now afforded by the cellophane industry in the United State is 40,000 --- 7,000 in direct production and 33,000 in supply, distribution, converting, etc.

LOGICAL TIME TO TREAT SMALL GRAIN AND FLAX SEED IS
SAME TIME THEY CLEANED IN WINTER, SAYS IOWA STATE

The logical time to treat seed of small grain and flax is in the winter, when they are being cleaned. This is a recommendation of Arden F. Sherf, extension plant pathologist at Iowa State College at Ames, Iowa.

On the basis of many tests, Mr. Sherf recommends "Ceresan" seed disinfectant for these seed.

For years Iowa State and other colleges have been recommending seed treatment as a standard practice for controlling disease and improving germination and stands. It is now also telling farmers that the best time to treat the seed is in the winter.

Mr. Sherf said that oat yield tests show that treating seed has increased yields on an average of three bushels an acre. The three-bushel figure is the average increase obtained in more than 10,000 comparisons made by Iowa State College since seed treating became a recommended practice.

Seed Treating Improves Stand

The reason for higher yields is that treating produces better stands and protects the stand from some plant diseases. Chemicals applied uniformly on seed protect it from rotting organisms during the critical period of germination. They also protect plants from diseases, such as smuts carried on the seed, which cause trouble later on.

For oats, barley and wheat, Mr. Sherf recommends treatment with "Ceresan" seed disinfectant at the rate of one-half ounce per bushel.

Amount to Use for Flax

Recommended treatment for flax is one ounce of "Ceresan" per bushel for brown seeded varieties and one and a half ounce per bushel for golden seeded varieties.

Mr. Sherf recommends treating only as much grain as will be needed for seed. Chemically treated grain should not be fed to livestock in any amounts because of danger of poisoning, Mr. Sherf cautions.

He also advises against inhaling any of the dust while treating seed. Good ventilation and a dust mask can head off any irritation and unpleasant effects that the chemical might cause, he said.

GREATER EFFICIENCY IN HARVESTING RICE ACHIEVED
WITH USE OF 2,4-D IN NATION'S RICE BOWL STATES

More rice, greater efficiency in harvesting the crop, and less costly drying operations are the predictions of agricultural experts for the nation's rice bowl in Louisiana, Texas, and Arkansas as a result of increased use of chemical weed killers.

Used to a limited degree the past several years, 2,4-D applications to control weeds in rice fields are becoming almost a standard practice.

Destruction of Mexican weed, indigo, red root, lilies, tie vines and other weedy plants enables the crop to make its best growth for a top yield. At the same time, combines or binders are able to operate at greater speeds and get all the grain from a clean, ripe crop free of green weeds, and the rice is found to dry faster, due to freedom from wet, green weed seeds and pods.

"Amine" Salt Recommended by Du Pont

According to Edgar C. Tullis, U. S. Department of Agriculture plant pathologist of Beaumont, Texas, 2,4-D applications should be made during the period of four to eight weeks after emergence of the rice, using from a quarter-pound to a pound of acid equivalent per acre, depending on the age of the rice and the amount of active weed growth.

"If top-dressing fertilizers are to be used," Tullis points out, "the rice should be drained, the fertilizer applied on either wet or dry soil and the irrigation water replaced before the 2,4-D is used. This accomplishes a two-fold result. The weeds are certain to be in a receptive condition, and the crown of the rice plant is protected so that less root injury will be caused. Young rice plants can be severely injured and growth retarded for a month from too much 2,4-D or improper application."

Rice growers are also warned not to apply 2,4-D when a breeze is blowing toward neighboring fields where sensitive crops such as cotton, sweet potatoes, and most common vegetable crops are being grown. Drift of the weed killing chemical onto these crops can cause them severe damage.

In line with this warning, weed control specialists of the Du Pont Company recommend that all treating of rice fields be done with the "amine" salt of 2,4-D, which is much less likely to cause damage to nearby crops than the more volatile 2,4-D "esters." The "amine" is in liquid form, can be purchased by the gallon containing four pounds of acid equivalent, and is less expensive than the "ester" formulations.

MAKE A CHRISTMAS WREATH FROM THAT OLD WAGON
WHEEL, PETER HUNT ADVISES AND TELLS YOU HOW

An array of fun-to-paint Christmas decorations for front doors and shutters, for party tables, Christmas tree stands, and toys has been created as suggestions for the amateur by Peter Hunt, noted Provincetown artist.

He also gives ingenious Transformagic ideas for making "Christmas trees" from tiers of old tables, "wreaths" from the rim of a wagon wheel, and Christmas "chandeliers" from an inverted piano stool or parts of Victorian furniture.

"Make merry with the paint brush," he says, "and you will be surprised at the decorations and gifts you can create from out-moded furniture, old wooden boxes, dime store objects, and raw materials like old boards and plywood. It's a gay adventure in self-expression to transform these things with a little carpentry and hand-painted designs in the simple folk-art manner. You don't have to be a trained artist to make ornamental candlesticks from the legs of a broken down table, or a miniature peasant village from chunks of wood."

Start Making Decorations Early

These fun-to-do gifts, as well as trimmings for your home, are easily accomplished by following the basic-stroke technique of painting explained in the Transformagic booklet available at Du Pont paint dealers.

Start your Christmas decorations outdoors, Peter Hunt advises, with a gay and welcoming front door panel. For his own front door he uses a plywood panel painted red and fastened to the door with four brads. It is ornamented with a wreath and "Merry Christmas" in easy script in several foreign languages. Flying angels with trumpets will broadcast Christmas cheer when used as shutter decorations. Here again Peter Hunt uses plywood, painted red, to cover the shutters.

Plywood Figures Used As Ornaments

If you happen to have a red house with white shutters, you may fasten above the window a white arc of plywood, decorated with reindeer or prancing horse design. Or if you have window boxes, Peter Hunt suggests decorating them with angels or florals in peasant style.

For ornaments to adorn the inside of your home, try your hand at painting plywood figures which can be cut with a jigsaw. Give your kitchen walls a holiday air with cut-outs of gingerbread men and other cookie shapes, painted molasses-brown and "frosted" with white wavy lines. To trim the Christmas tree or ornament the holder, you'll enjoy painting engaging figures of angels with the basic stroke method. As a guide for the first cut-out, make a paper pattern of half the figure, trace it on plywood and reverse it for the other half. The first wood cut-out may be used as a pattern for the other figures.

NEW FORMULATION FOR "DELSTEROL" D-ACTIVATED ANIMAL
STEROL PERMITS MORE ACCURATE DISPERSION IN MASHES

Du Pont's "Delsterol" D-activated animal sterol is now being offered in a new carrier and with a higher vitamin potency that means lower use cost. The new formulation provides 4,000 D units per gram, double the concentration of the familiar 2,000-D "Delsterol", which is still available.

Refined corn meal of an improved type is the new carrier which is used for both 2,000-D and 4,000-D "Delsterol." The harder granules and more uniform particle size make possible greater precision in accurately dispersing it. This eliminates any tendency of the carrier to cake.

Like 2,000-D, the new formulation is used in several ways to fortify mashes. It may be placed directly in the feed mixer with other food elements, or it may be mixed with middlings, shorts, or other organic feed material before the final mixing. Or, it may, as preferred by some mills, be made into a D pre-mix with other organic feed ingredients, excluding mineral elements.

Du Pont "Delsterol" was developed to provide the specific nutritional element needed to fortify poultry feeds with the indispensable anti-rachitic factor. Produced under carefully controlled conditions, it is exceptionally stable and always uniform in Vitamin D potency. It is highly concentrated and more economical, mixes into feeds with ease and complete accuracy.

The new 4,000-D and 2,000-D formulations assure more uniform and thorough distribution of the vitamin throughout the feed, so flocks get enough vitamin D for normal growth and sound bone development in chicks. This contributes to satisfactory egg yields from layers; good hatchability; and also helps maintain health, vigor, and livability.

NYLON KNOTLESS TAPERED LEADER NOW AVAILABLE

A knotless tapered leader of nylon monofilament is now available to fresh and salt water fishermen.

After two years of experimenting, the Haywood Manufacturing Company of Denver, Colorado, has perfected a machine for making tapered nylon leaders in 6-ft., 7½-ft., and 9-ft. lengths in several degrees of taper without knots.

The advantages of the new knotless leader are immediately apparent. The continuous tapered leader does away with the hinging effect caused by tying together leader material of different diameters; eliminates disturbance in the water caused by a series of knots; makes possible a butt diameter which more nearly matches the taper of the line; and produces a leader that lays a fly out on the water much straighter.

Nylon leaders have gained favor among fishermen who find that nylon's elasticity absorbs much of the shock of a hard strike and helps set the hook securely.

NEW EDITION OF BOOKLET FOR FISHERMEN PUBLISHED

"Knots and How to Tie Them with Du Pont Nylon Leader Material," the booklet distributed last year by the Du Pont Company, received such a welcome from fishermen all over the country that a revised edition has been published.

The new edition, entitled, "What's New in Fishing Tackle Made from Du Pont Nylon Monofilament," contains all of the sections covered by the old booklet with up-to-date revisions and additions. A 10-page section describing the use of nylon leader material for all types of salt-water fishing has been added.

The uses of nylon monofilament as spinning, trolling, and ice-fishing lines are discussed, as are braided nylon monofilament applications and special nylon leaders for surf casting, bug casting, and trolling. Special weakfish and quick-change leaders also are described, together with news about crimped nylon monofilament lures and camouflaged nylon for fresh and salt-water fishing. Readers of the Agricultural News Letter may obtain copies of the booklet by writing E. I. du Pont de Nemours and Co., Inc., Polychemicals Department, Room N-9529, Wilmington, Delaware.

RESEARCH ALWAYS GOES ON

It is a fundamental of Du Pont's research policy that it must go on in spite of ups and downs of business. Both neoprene and nylon were "children" of the depression.

SEVENTY-SIX FELLOWSHIPS FOR GRADUATE RESEARCH IN
SCIENCE, ENGINEERING AWARDED FOR YEAR 1950-1951

The award of 76 post-graduate and post-doctoral fellowships to 47 universities for the 1950-51 academic year has been announced by the Du Pont Company. An authorization of \$224,000 was provided for the awards.

Granting of these fellowships is a continuation of the company's plan, originated in 1918, to encourage graduate research in chemistry. It has since been expanded to include the fields of physics, metallurgy, and engineering.

It is expected that the program will help maintain the flow of technically trained men and women into teaching and research work at universities and into technical positions in industry.

Universities Select Problems to Work on

The selection of candidates for the fellowships and the choice of problems on which they are to work are, as in the past, left to the universities which receive the awards. Individuals are under no obligation with respect to employment after completing work under this plan.

Each of the post-graduate fellowships provides \$1,200 for a single person or \$1,800 for a married person, together with an award of \$1,000 to the university, for the next academic year. Each of the post-doctoral fellowships provides \$3,000 for the recipient and a grant of \$1,500 to the university.

Of the 70 post-graduate fellowships to be awarded, 45 are in chemistry, 15 in chemical engineering, 5 in mechanical engineering, 3 in physics, and 2 in metallurgy.

The 6 post-doctoral fellowships are for work in chemistry. They are designed to serve as an incentive to individuals who wish to enter industrial research work as well as those who prefer to remain in academic work and who would be qualified for staff positions on graduate faculties.

.....

:
:
:
: TESTS PROVE SANITATION AN IMPORTANT FACTOR IN GOOD FLY CONTROL :
:
:
:

: The importance of good sanitation in obtaining effective fly :
: control in dairy barns has been demonstrated once again by recent practi- :
: cal tests conducted in Texas by entomologists of Du Pont's San Antonio :
: Field Station. In these tests, many barns were sprayed with recommended :
: dosages of methoxychlor, which is one of the few residual insecticides rec- :
: ommended by the U.S.D.A. for use on dairy barns. Periodic checks were made :
: to determine the fly population in the barns and to measure the actual ef- :
: fectiveness of the insecticide deposits on the various barn surfaces. Pos- :
: sible resistance of the flies to methoxychlor was also checked. In no case :
: were resistant flies found. :
:

: In all barns where good sanitation was practiced before and dur- :
: ing the test period, effective fly control was maintained for more than :
: two months. The clean surroundings on these farms represent an important :
: factor in the effective fly control demonstrated. :
:

: In barns surrounded by conditions conducive to fly breeding, :
: practical control of flies had ceased after about six to eight weeks. This :
: early failure occurred even though the insecticide deposits on the walls :
: still retained good killing action. In these cases, poor sanitation con- :
: ditions allowed flies to breed rapidly and made more difficult the job the :
: insecticide was called upon to do. It was noticed that many of the favorite :
: resting places of flies in these barns were covered with feed dust and fly :
: excrement, which obviously rendered the insecticide deposit ineffective. :
: The build-up of fly excrement was particularly noticeable in unscreened :
: barns surrounded by intensified fly breeding conditions. :
:

: Once more it is clearly emphasized by these tests that it is im- :
: portant to employ the best practical sanitation practices possible. Maxi- :
: mum length of effectiveness of the residual insecticide used will be rea- :
: lized when the insecticide is used in conjunction with such practices as :
: removal of fly breeding conditions and screening of doors and windows. :
:
:
:.....

DECISIONS CONSTANTLY MADE ON FARM CONSTITUTE
VALUABLE TRAINING FOR LEADERSHIP, F.F.A. TOLD

WASHINGTON, D. C. -- Farming is a great "training for leadership" sorely needed by our nation in "these trying times," it was pointed out here recently to six of the outstanding farm boys of the country, attending the annual meeting of the national board of trustees of Future Farmers of America.

The boys, chosen from thousands of F. F. A. members throughout the nation, were saluted by Clark W. Davis, assistant general manager of Grasselli Chemicals Department of the Du Pont Company, at a luncheon honoring officers and adult directors of this national farm youth organization.

"Farming today is recognized as the No. 1 industry of America," Mr. Davis said, "so I can properly greet you as fellow industrialists."

Chemical Industry and Agriculture

"The fact that American agriculture, with less than 30% of the total population, has done such a vast production job in the past decade, is nothing less than a tribute to you and your families. We in the chemical industry, who have participated in bringing in this era of 'chemical farming' are heartened by what has happened to keep our laboratories and experimental farms busy looking for even better materials for agriculture of tomorrow."

Speaking of training for leadership, Mr. Davis said: "On the farm you have to make important decisions every day. You have to sell your hogs when the market is right, or they eat up all your profits. You have to plow when the land is right, and get your crops in on time. You have to judge for yourself whether you're going to raise corn, oats, soybeans or alfalfa. When you're making this kind of a decision every day, you're preparing for leadership!"

"Farmers in our country," Mr. Davis pointed out, "through their purchases, keep other industries going. They are not economic zeros like the millions of agrarians in other continents who have small producing power, and virtually no purchasing power."

National Future Farmer officers on hand for the meeting were George Lewis, national president, Champaign, Ill.; Rogers Fike, first vice-president, Eglon, W. Va.; Joe King, second vice-president, Petaluma, Calif.; Merrill Cartwright, third vice-president, Booneville, Miss.; Donald Bakehouse, student secretary, Owatonna, Minn.; and Doyle Conner, past national president, Starke, Fla. Absent because he was representing F. F. A. at an international meeting of farm youths in England was Glenn Lackey, fourth vice-president, of Delaware, Ohio.



BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY